

# ABSTRACT OF THE DISCLOSURE

A method and corresponding apparatus for determining the centroid ( $V_c$ ) of a waveform signal being sampled at a set of parameter values ( $V_i$ ,  $i=1, \dots, n$ ) yielding a corresponding set of sampled amplitudes ( $A_i$ ,  $i=1, \dots, n$ ), each parameter value and corresponding amplitude forming a sampled point ( $V_i$ ,  $A_i$ ), the method including the steps of: selecting an amplitude at which to create an interpolated point; interpolating a first parameter value corresponding to the amplitude selected in the step of selecting an amplitude; and performing a centroid calculation using only the sampled points with an amplitude greater than a predetermined threshold. The waveform is sometimes sampled in the presence of background noise, and the method sometimes also includes: estimating the background ( $B_i$ ) for each value in the set of parameter values at which sampling is performed; and reducing the amplitude ( $A_i$ ) of each sampled amplitude by the background ( $B_i$ ) so estimated.